REMARKS

First of all applicant confirms the election of claims 1-7 with traverse of the restriction requirement on the grounds that the apparatus claims 8-20 are generally co-extensive with the method claims and claim an apparatus for carrying out the method of claims 1-7.

The Examiner's objections to the specification, claims and drawings are believed to be overcome by the amendments to the specification and claims set forth above.

The Examiner's rejection of claims1-7 under 35 U.S.C. §102 for being anticipated by the Kobayashi et al. U.S. Published Patent application no. 2004/0011457, as these may be attempted to be applied against the amended and new claims are respectfully traversed.

Claim 1 has been amended to call for:

an array of UV-LED chips arranged in staggered rows on and mounted to a panel such that the UV LED chips in one row are adjacent spaces between UV LED chips in an adjacent row on the panel.

The Examiner contends that this structural arrangement is anticipated by paragraphs **[0041]** and **[0074]** in Kobayashi et al.

However a reading of these paragraphs does not disclose this structural arrangement. See these paragraphs reproduced below

> **[0041]** A seventeenth invention of the present invention is according to the above sixteenth invention, and is characterized in that the plurality of light-emitting semiconductor elements are arranged in the shape of a spiral, concentric circles or polygon, or are arranged randomly.

Thus all that paragraph **[0041]** discloses are elements "arranged in the shape of a spiral, concentric circles or polygon, or are arranged randomly". This is not an arrangement in staggered rows!

> **[0074]** Immediately above the upper substrate 1, a semiconductor light-emitting unit 7 that is composed of a large number of light-emitting semiconductor elements in the form of light-emitting diodes

7a and a support 7b that supports them is arranged. In this embodiment, the large number of light-emitting diodes 7a are arranged in close proximity, and attached to the support 7b so that a light-emitting surfaces X of the large number of light-emitting diodes 7a are all in the same plane. Although the large number of light-emitting diodes 7a may be arranged randomly in close proximity, they are preferably arranged in the shape of concentric circles or a spiral. The manner in which the large number of light-emitting diodes 7a are arranged will be described later in detail. Although not shown in the drawings, together with the large number of light-emitting diodes 7a all being connected in parallel, a protective resistor is connected in series to each light-emitting diode 7a. In the case of actual assembly, since surface-mounted light-emitting diodes and resistors should be surface-mounted to a disc-shaped printed wiring board that serves as the support 7b or a portion thereof, it can be produced easily even if there are, for example, about 350-450 light-emitting diodes and resistors each. Here, one reason for connecting the light-emitting diodes 7a in parallel instead of in series is that, since malfunctions of the light-emitting diodes 7a consist of short-circuits and open circuits, if they are connected in series, light emission by the semiconductor light-emitting unit 7 would be impaired when the malfunction was an open circuit, while another reason is that, since the voltage drop of the light-emitting diodes is several volts per diode, if 350-450 of diodes were connected in series, a high voltage in excess of 1000 V would be required.

Likewise all that paragraph **[0074]** discloses is that "light-emitting diodes 7a may be arranged randomly in close proximity, they are preferably arranged in the shape of concentric circles or a spiral."

A further study of Kobayashi et al. reveals that it teaches that the diodes "are densely arranged in close proximity on the printed wiring board". Kobayashi et al. also teaches arranging the diodes 7a in rows a, b, c, d ...n, and shows the

arrangement in FIG 6a. It is noted that FIG. 6a does not show staggered rows as disclosed and now claimed even more clearly in the amended claims.

With respect to claim 6 Kobayashi et al. does disclose arranging:

"one or more light-emitting semiconductor elements at a location away from the outer peripheral surfaces of the first and second substrates, the semiconductor light-emitting apparatus and first and second substrates are rotated relative to each other, and adhesive that has escaped from between the first and second substrates is cured by irradiating the outer peripheral surfaces of the first and second substrates with ultraviolet rays emitted from the light-emitting semiconductor elements"

Applicant differs from this teaching of Kobayashi et al. by calling for: arranging an auxiliary array of staggered rows of UV-LED chips on a panel at the periphery of the disk or other rotatable product for emitting UV light at the disk from a side of the disk. Kobayashi et al does not disclose or call for the positioning of a panel of staggered rows of UV LED chips at the periphery of a two substrates disk or other rotatable product, as called for in amended claim 6.

New claim 21 calls for one row of the staggered rows to contain LED chips that emit light in the visible spectrum so a user can quickly determine if power is being delivered to the LED chips.

New claims 22-25 cover the provision of UV LED chips that emit UV light at different wavelengths, the specific wavelengths, and the positioning of the UV LED chips of different wavelength emissions in alternate rows of the staggered rows or interspersed in the staggered rows of UV LED chips.

Support for these features and/or elements in the new claims are found in the parent, co-filed application and the supportive wording from that application is being added to the subject application.

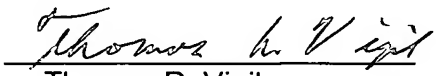
Applicant submits that these new claims are patentably distinguished over the Kobayashi et al. reference and other prior art references known to applicant.

Applicant further submits that all the amended and new claims are in condition for allowance.

An earnest endeavor has been made to place this application in condition for allowance and an early and favorable action to that end is requested.

Respectfully submitted,

WELSH & KATZ, LTD.

August 15, 2006 By: 

Thomas R. Vigil
Reg. No. 24,542
Attorney for Applicant

120 South Riverside Plaza
Floor 22
Chicago, IL 60606-3912
Tel.: 312 655 1500
Fax: 312 655 1501

P.S.-If any fees are required for addition of new claims 21-25, please charge those fees to our Deposit Account No. 23-0920.